

**REMARKS**

This Amendment is filed in response to the Office Action mailed on August 18, 2004. All objections and rejections are respectfully traversed.

Claims 1 and 4-78 are currently pending in the application.

No claims were added.

Claims 1, 5, 13, 17, 23, 34, 47-48, 61-62, and 75-78 were amended to correct grammatical or typographical errors and do not introduce new matter.

**Rejections Under 35 U.S.C. § 102(e)**

At Paragraph 2 of the Office Action, claims 32-36, 38-44 and 46 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,693,907 to Wesley et al., issued on February 17, 2004 (hereinafter “Wesley”).

The present invention, as set forth by representative claim 32, comprises in part:

32. A router controlling congestion on links attached to the router, said router comprising:

a plurality of ports;  
style="padding-left: 20px;">a first port of said plurality of ports for receiving a data packet;  
style="padding-left: 20px;">a second port of said plurality of ports for transmitting said data packet;

a receiver configured to receive *an incoming loss report message* on said second port;

a processor configured to determine *loss of packets* on selected ports of said plurality of ports, said processor being further configured to *calculate*, in response to *said incoming loss report message* and said *loss of packets*, a *loss rate statistic*; and

a transmitter configured to transmit an outgoing loss report message through said first port, said outgoing loss report message containing a field having said loss rate statistic written therein.

Wesley discloses a multicast distribution tree of routers wherein some of the routers are designated as repair heads. Each repair head router keeps track of the number of packets received, and the number of the received packets that are retransmitted. Each router downstream from a repair head transmits to its repair head a loss rate metric for a multicast session, which is computed by dividing the count of the retransmitted packets by the count of received packets. The repair head routers, in turn, may transmit these loss rate metrics to the sending node, and the sending node may respond by reducing its transmission rate.

Applicants respectfully urge that Wesley does not disclose a processor configured *to calculate a loss rate statistic in response to an incoming loss report message and a loss of packets* and, thus, respond to two inputs to calculate a loss rate statistic.

That is, Wesley discloses the computation of a loss metric which is a quotient of the count of the retransmitted packets divided by the count of received packets. In sharp contrast, Applicant claims the calculation of *a loss rate statistic in response to an incoming loss report message and a loss of packets*.

Accordingly, Applicant respectfully urge that Wesley is legally precluded from anticipating the invention described in representative independent claim 32 because Wesley does not disclose the claimed novel calculation of *a loss rate statistic in response to an incoming loss report message and a loss of packets*.

The present invention as set forth by independent claim 33 comprises in part:

33. A router controlling congestion on links attached to the router, said router comprising:

a plurality of ports;

a first port of said plurality of ports for receiving a data packet;

a second port of said plurality of ports for transmitting said data packet in a downstream direction;

a processor configured to *determine loss of packets* on a port of said plurality of ports and, *in response to said loss of packets, to calculate a loss rate statistic*; and

a transmitter configured to *transmit an outgoing loss report message* through said first port *in an upstream direction*, said outgoing loss report message containing a field having said loss rate statistic written therein.

As set forth above, Wesley discloses a multicast distribution tree of routers wherein each router downstream from a repair head transmits to its repair head a loss rate metric for a multicast session.

Applicants respectfully urge that Wesley does not disclose *[determining a] loss of packets* on [a port] and, *in response to said loss of packets, [calculating] a loss rate statistic*; and *[transmitting] an outgoing loss report message* through said first port *in an upstream direction*.

Instead, Wesley discloses only the transmission of a loss metric from a receiver to its repair head. Applicant submits that, as not all upstream routers in Wesley are repair heads, the transmission of the loss metric in the system disclosed by Wesley is to less than all upstream routers.

Accordingly, Applicants respectfully urge that Wesley is legally precluded from anticipating the invention described in representative independent claim 33 because

Wesley does not disclose the claimed novel *[determining a] loss of packets* on [a port] and, *in response to said loss of packets, [calculating] a loss rate statistic*; and *[transmitting] an outgoing loss report message* through said first port *in an upstream direction*.

Claims 34-36, 38-44 and 46 are all dependent claims depending from independent claim 33. Applicants urge further that claims 34-36, 38-44 and 46 are also allowable under § 102(e) over Wesley, as they are dependent claims depending from a base claim believed to be in condition for allowance.

#### Rejections Under 35 U.S.C. § 103(a)

On page 8, at Paragraph 2 of the Office Action, claims 1, 4-27, 30, 31, 35, 37, 47, 48-58, 60-72, and 74-78 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wesley.

The present invention, as set forth by representative claim 1, comprises in part:

1. A router controlling congestion on links attached to the router, said router comprising:
  - a plurality of ports;
  - a first port of said plurality of ports for receiving a data packet;
  - a second port of said plurality of ports for transmitting said data packet;
  - a receiver to *receive an incoming loss report message* on said second port;
  - a first processor to *determine loss of packets on selected ports* of said plurality of ports;
  - a second processor to *calculate, in response to said incoming loss report message and said loss of packets, a loss rate statistic*;
  - a transmitter to transmit an outgoing loss report message through said first port, said outgoing loss report message containing a field having said loss rate statistic written therein.

Applicants respectfully urge that Wesley is silent concerning Applicants' novel *[calculating] a loss rate statistic in response to an incoming loss report message and a loss of packets* and sending that loss report message to an upstream router.

That is, Wesley discloses computing a loss metric which is a quotient of the count of the retransmitted packets divided by the count of received packets. In sharp contrast, Applicant claims the calculation of *a loss rate statistic in response to an incoming loss report message and a loss of packets*.

Moreover, Wesley discloses only the transmission of a loss metric from a receiver to its repair head. As not all upstream routers in Wesley are repair heads, the transmission of the loss metric in the Wesley system to less than all upstream routers does not render the present invention obvious.

In this regard, U.S. Patent No. 6, 188,674 issued to Chen et al. on February 13, 2001 (hereinafter "Chen") was also cited in conjunction with Wesley with respect to independent claim 23. However, Chen fails to teach or suggest Applicants' claimed incoming or outgoing loss report messages that are forwarded through a router in an upstream direction, i.e., in a direction opposing the flow of data.

On page 46, at Paragraph 2, claims 28, 29, 45, 59 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wesley in view of U.S. Patent No. 5,715,177 to Machida et al., issued on February 3, 1998 (hereinafter "Machida"). Applicants respectfully note that all of claims 8, 28, 29, 45 and 59 are dependent claims, and are dependent from independent claims which are believed to be in condition for allowance.

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Accordingly, Applicants respectfully urge that claims 8, 28, 29, 45 and 59 are also in condition for allowance.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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